Use Attainability Analysis

for

WBID 0912 Davis Creek

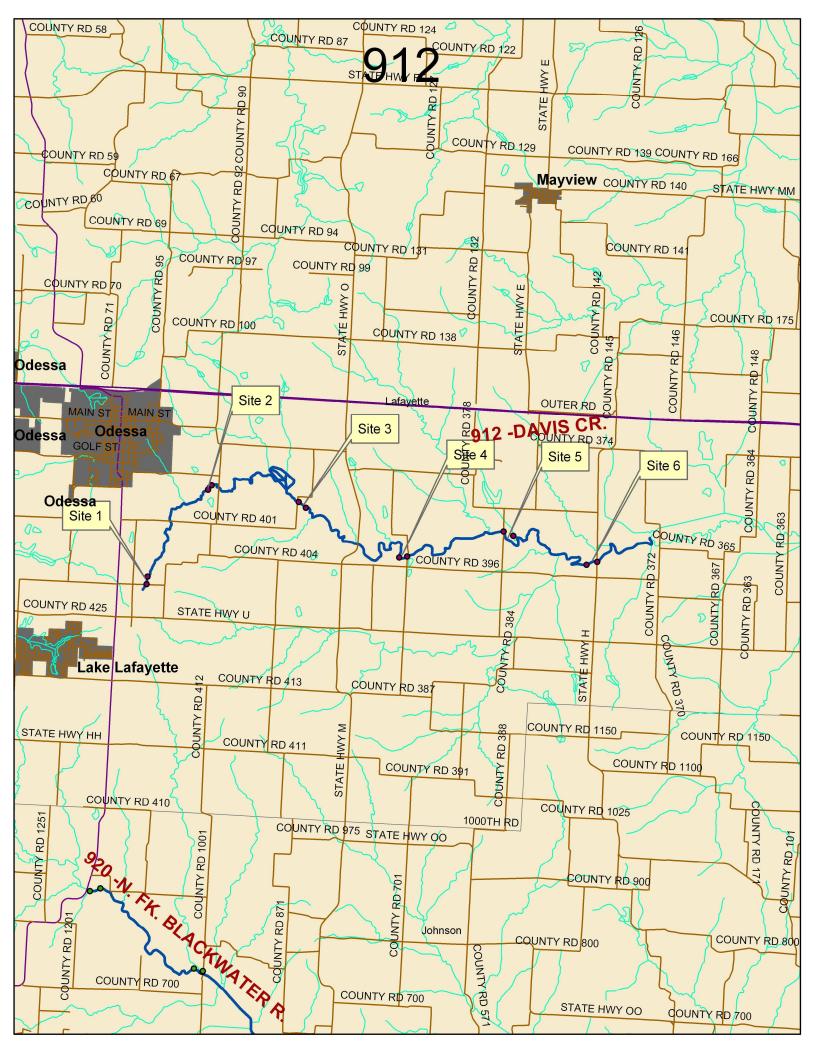
Submitted by SES, Inc.

to Missouri Department of Natural Resources Water Protection Program

Date received: November 14, 2007

### Data Sheet A - Water Body Identification

I. Water Body Information (For water body being	ng surveyed)
Water Body Name (from USGS 7.5' quad):	
Davis Creek	
Missouri Water Body Identification (WBID) Number:	
912	
8 digit HUC code:	County:
10300104	Lafayette
Upstream Legal Description (from Table H):	
T48N R28W Sec 13	
Downstream Legal Description (from Table H):	
T48N R26W Sec 8	
Number of sites evaluated:	
6	
List all site numbers, listed consequently upstream to do	ownstream:
1,2,3,4,5,6	
Site Locations Map(s): Attach a map of the entire segn	ment with assessment sites clearly labeled.
Mark any other items that may be of interest.	
II Facility Information (list all promitted discharges to t	4h
<b>II. Facility Information</b> (list all permitted discharges to t Facility Name(s) and Permit Number(s):	tne water body segment)
Odessa Municipal WWTF MO 0026387	
IMO 0026367	
III. UAA Surveyor (please print legibly)	
Name of Surveyor:	Telephone Number:
Aaron Ball	(913)307-0046
Organization/Employer:	(010)001 0010
SES, Inc.	
020,	
Please verify that you have completed all sections, of	checked all applicable boxes, and that the form is
complete.	and the second s
r	
Signed: Aaron Ball	Date: 11.09.07



WBID#	912
Site #	1

Date & Time:	10	0/26/07	11:35	Site Location	on Descrip	tion (e.g. road	crossing):		
Personnel:	Aa	aron Ball, Drew D	odson		Varier Rd.	•			
Current Weath	ner Conditi	ions: cloudy		Facility Nar	ne:	Odessa Muni	cipal WWTF		
Weather cond	litions for th	he past 10 days:	1.96 inches	Permit Num	nber:	MO 0026387			
Drought cond	itions?: No	drought ☑ ; Phas	se I □ ; Phase	· II □ ; Phas	e III □ ; Pl	nase IV □ ; Ur	nknown 🗆		
Site Location	1:								
		niversal Transvers	se Mercator Pr	rojection, In	Meters				
Site 01	Easting (U	JTM X):	Northing (UTN	И Y):		Horizontal Ac	ccuracy: Mete		
	0418080		4313180				4.2		
Site 11	Easting (U	JTM X):	Northing (UTN	И <u>Y</u> ):		Horizontal Ac	ccuracy: Mete		
	0418104		4313371				4.2		
Photos:	т —		<del></del>	<del></del>		ī	<u> </u>		
Photo ID#	Pho	oto Purpose	Photo ID#:	Photo Purpose		Photo ID#:	Photo Purpose		
47	Upstream	i	48	Downstrear	m				
Photo ID#	Pho	oto Purpose	Photo ID#	Photo Purpose		Photo ID#	Photo Purpose		
Photo ID#	Pho	oto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose		
				<u> </u>					
Uses Observ	ed:								
☐ Swimming	<u> </u>	☐ Skin diving	☐ SCUBA di	iving	☐ Tubing	g	☐ Water Skiing		
☐ Wind surfi	ng [	☐ Kayaking	□ Boating		□ Wadin	ng	□ Rafting		
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:		
Describe:	•		•						

WBID#	912
Site #	1

Data Sheet B- Site Characterization (Continued)							
Surrounding Conditi	one						
☐ City/County parks	☐ playgrounds	☐ MDC conservation	on lands	☐ Urban areas	. I	al Residential	
☐ Campgrounds	☐ State parks	☐ National Forests		☐ Nature trails		irs/walkways	
☐ Boating accesses	☐ Fence	☐ No tresspass sig		☐ Steep Slopes		•	
Comments:	1 = 1 = 11 = 1	<u>                                     </u>		<u> </u>			
none							
Evidence of Human I	Use:						
☑ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Site	es 🗆 Rop	e swings	
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharg	je	☐ Fishing Tack	le □ Live	estock watering	
comments/other:			<del>_</del>				
none							
			-				
Substrate:							
% Cobble	% Gravel	% Sand	% Silt	% Mu	ıd/Clay	% Bedrock	
70 222.3	70 0.0.0.	70 23	,,		00	, , , , , , , , , , , , , , , , , , , ,	
Aquatic Vegatation:							
N/A							
Water Characteristic							
Odor:	☐ Sewage	□ Musky	☐ Chemi		✓ None	☐ Other:	
Color:	☐ Clear	□Green	☐ Gray		□ Milky	☑ Other:	
						N/A	
Bottom Deposit:	□ Sludge	☐ Solids	□ Fine s	ediments [	☑ None	□ Other:	
Surface Deposit:	Oil	☐ Scum	☐ Foam		☑ None	☐ Other:	

### Field Data Sheets for Recreational Use Stream Surveys

# Data Sheet B - Site Characterization (continued)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses	Additional Stream I	Morphology: (Re	ecord isolated pools or other	features identified during	the survey that may	support recreational uses)
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Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
omments: (Please red	cord any additional comments	here.)			
	k only holds water after i		`		
and owner sald creen	K Only Holds water after i	najor land events	).		
	u have completed all s	ections, checke	d all applicable	boxes, and that the	form is
	u have completed all s	ections, checke	d all applicable	boxes, and that the	form is
lease verify that yo omplete.	u have completed all s	ections, checke	d all applicable	boxes, and that the	form is
omplete.		ections, checke			form is
omplete.		ections, checke		boxes, and that the 10/26/2007	form is
		ections, checke			form is

																		Disso	lved O	xygen		
		ody ID:														Date:	10/26/0	7	-	Time:	11:35	
								een low b								D	issolved	Oxygen:		N/A	(mg/L)	
	01	UTM X	:	0418080	0	•	UTM Y:		431318	0	(EPE / P	+/-	4.2	(meters)		D	issolved	Oxygen:			(% sat)	
		UTM X			4			( , )				+/-	4.2	(meters)	•		Specif	ic Cond:			(µS/cm)	)
	_	e Stream ermne Le					N/A	(meters)		-	-	Segment: m width)		150	(meters)	Wa	ater Tem	perature:		N/A	(°C)	
	Fie	ld Staff:				Aaron E	Ball, Drev	w Dodson						-								
										Tra	nsect C	ross-Se	ction									
	(	01	0	)2	0	)3		04	(	)5	(	)6		07	0	8	(	)9	1	10	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
2	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
3	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
4	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
5	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
6	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
7	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
8	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
9	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00	#####	0.00	######	0.00	#####	0.00	#####	0.00	#####	0.00
ight Bank	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00	N/A	0.00
eature Type	ı N	Ī/A	N	/A	N	/A	N	J/A	N	-/A	N	/A	N	J/A	N/	'A	N	/A	N	//A	N	/A

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

Signed: Aaron Ball Date: 11.09.07
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WBID#	912
Site #	2

Date & Time:		10/26/07	10:46	Site Location	on Descrip	tion (e.g. road	crossing):		
Personnel:		Aaron Ball, Drew D	odson		Kinnamor	ı Rd.			
Current Weath	her Con	ditions: cloudy		Facility Nar	ne:	Odessa Muni	cipal WWTF		
Weather cond	litions fo	or the past 10 days:	1.96 inches	Permit Num	nber:	MO 0026387			
Drought condi	itions?: I	No drought ☑ ; Pha	se I □ ; Phase	· II □ ; Phas	e III □ ; Pi	hase IV □ ; Ur	nknown 🗆		
Site Location	1:								
		(Universal Transver	se Mercator Pr	rojection, In	Meters				
Site 01	Easting	g (UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters	
	041962	26	4315558					5.1	
Site 11	Easting	g (UTM X):	Northing (UTN	M Y):		Horizontal Ac	ccuracy:	Meters	
	041971	 I8	4315666					6.6	
	01101		10.000			_	_	0.0	
Photos:			<u> </u>	T		1	T		
Photo ID#	<u> </u>	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Pi	urpose	
45	Downst	tream	46	Upstream					
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	urpose	Photo ID#	Photo Pi	urpose	
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo P	urpose	
Uses Observ	ed:								
□ Swimming □ Skin diving			☐ SCUBA di	iving	ing		☐ Water Skiin		
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting		
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:		
Describe:									

WBID#	912
Site #	2

#### **Data Sheet B- Site Characterization (Continued)**

	Data Sileet D-	Site Cital acterization	m (Continued)		
Surrounding Conditi	ons:				
☐ City/County parks	☐ playgrounds	☐ MDC conservati	on lands 🔲 Urba	an areas 🛛 🗹	Rural Residential
☐ Campgrounds	☐ State parks	□ National Forests	s □ Natu	re trails	Stairs/walkways
☐ Boating accesses	☑ Fence	☐ No tresspass sig	gn □ Stee	p Slopes □	·
Comments:	-1	-	•		
none					
Evidence of Human					
☑ Roads	☐ Foot path/prints	☐ Dock/platform		ping Sites □	
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharg	je □ Fishi	ing Tackle □	Livestock watering
comments/other:					
none					
Substrate:					
% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	y % Bedrock
70 CODDIG	70 Glavei	/0 Janu	30	76 Mud/Clay	/ // Dedition
	10				
Aquatic Vegatation:					
none					
none					ļ
Water Characteristic	s:				
Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ Nor	ne 🗆 Other:
Color:	☑ Clear	□Green	☐ Gray	☐ Milk	xy ☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediment	s ☑ Nor	ne 🗆 Other:
	□ Oldage			.5 1101	

Organization: SES, Inc.

### Field Data Sheets for Recreational Use Stream Surveys

# **Data Sheet B - Site Characterization (continued)**

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support re	recreational uses)
---	--------------------

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
<b>Comments:</b> (Please re none	cord any additional comments	here.)			
Please verify that yo	ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is
Surveyor's Signature:	Aaron Ball		Date of Survey:	10/26/2007	

Position: Field Team Leader

																		Disso	lved Ox	ygen		
	Waterbo	ody ID:	912			Site #:	2									Date:	10/26/07	7		Time:	10:46	
	Estimate	ed Chanr	nel Incisi	on:	3.0	(m) (hei	ght betw	een low b	ank wid	th and wa	ater)					Di	issolved	Oxygen:		8.7	(mg/L)	
		cation - l UTM X		0419626	5	1		izontal Ac				DOP / F0 +/-	OM) 5.1	(meters)				Oxygen:			(% sat)	
	11	UTM X		0419718	3	. 1	UTM Y:		431566	6	i	+/-	6.6	(meters)	•			ic Cond:			(uS/cm)	
	Average						3	(meters)		ength of				150	(meters)							
			ength of F						(2	20x avera	ge strear	n width)				Wa	iter Temp	perature:		11	(°C)	
	Fiel	ld Staff:				Aaron B	Ball, Drev	v Dodson						<u>-</u>								
										Tra	nsect C	ross-Se	ction									
	0	1	0	2	0	3	(	)4	(	)5	0	6		07	08	8	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.1	0.10	0.1	0.05	0.1	0.05	0.1	0.05	0.1	0.05	0.5	0.20	0.1	0.05	0.1	0.05	0.2	0.05	0.1	0.05	0.3	0.10
2	0.2	0.15	0.2	0.10	0.2	0.05	0.2	0.05	0.2	0.10	1.0	0.30	0.2	0.05	0.2	0.10	0.4	0.05	0.2	0.10	0.6	0.20
3	0.3	0.20	0.3	0.05	0.3	0.05	0.3	0.10	0.3	0.10	1.5	0.40	0.3	0.05	0.3	0.15	0.6	0.10	0.3	0.10	0.9	0.20
4	0.4	0.20			0.4		0.4	0.05	0.4					0.05	0.4						1.2	0.25
5	0.5		0.5		0.5		0.5	0.10			2.5			0.05	0.5				0.5			
6	0.6		0.6		0.6		0.6				3.0				0.6				0.6			
7	0.7	0.10		0.05	0.7		0.7	0.10			3.5			0.05	0.7				0.7	0.10	2.1	0.25
9	0.8		0.8		0.8		0.8		0.8		4.0		0.8		0.8				0.8		2.4	0.20
ight Bank	1.0	0.00	1.0	0.00	1.0	0.00	1.0	0.00	1.0	0.00	5.0	0.00	1.0	0.00	1.0	0.00	2.0	0.00	1.0	0.00	3.0	0.00
eature Type		•		•		•				•		•		•				•				
ffle, run, or pool	pc	ool	pc	ool	po	ool	pe	ool	po	ool	po	ool	р	ool	po	ol	pc	ool	po	ol	po	ol

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

Signed: Aaron Ball Date: 10.26.07
-----------------------------------

WBID#	912
Site #	3

Date & Time:		10/25/07	17:26	Site Location	on Descrip	tion (e.g. road	crossing):				
Personnel:		Aaron Ball, Drew D	odson		CR 401						
Current Weath	ner Cond	ditions: Partly clo	udy	Facility Nar	ne:	cipal WWTF					
Weather cond	litions for	r the past 10 days:	1.96 inches	Permit Num	nber:	MO 0026387					
Drought condi	itions?: N	No drought ☑ ; Phas	se I □ ; Phase	II □ ; Phas	e III □ ; Pl	nase IV □ ; Ur	nknown 🗆				
Site Location	1.										
		(Universal Transvers	se Mercator Pr	rojection, In	Meters						
Site 01	Easting	ı (UTM X):	Northing (UTN	<b>И</b> <u>Y</u> ):		Horizontal Ac	curacy:	Meters			
	042190	3	4315250	<del></del>	_			7.5			
Site 11	Easting	ı (UTM X):	Northing (UTN			Horizontal Ac	curacy:	Meters			
	042208	,	4315103				•	6.6			
	042200	<u> </u>	4010100					0.0			
Photos:							<del>,</del>				
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpo	se			
36	Upstrea	am	37	Livestock V	Vatering	38	Downstream				
Photo ID#	Р	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpo	se			
			<u> </u>								
Photo ID#	Р	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpo	se			
Uses Observ	ed:										
☐ Swimming		☐ Skin diving	☐ SCUBA di	iving	☐ Tubing	a	☐ Water Skiing				
☐ Wind surfi		☐ Kayaking	☐ Boating	J	□ Wadir		☐ Rafting				
						☐ Other:					
Describe:		ш паррыну			E NOIS	Of the above	LI Other.				
								ļ			

WBID#	912	2
Site #	3	3

# **Data Sheet B- Site Characterization (Continued)**

Surrounding Conditi	ions:					
☐ City/County parks	□ playgrounds	☐ MDC conservati	on lands	☐ Urban areas	☐ Rural	l Residential
☐ Campgrounds	☐ State parks	□ National Forests	;	☐ Nature trails	☐ Stairs	s/walkways
☐ Boating accesses	☑ Fence	☐ No tresspass sig	gn ng	☐ Steep Slopes		
Comments: none						
Evidence of Human					·	
☑ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Site		
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharç	je	☐ Fishing Tackle	e	tock watering
comments/other:						
none						
Substrate:						
% Cobble	% Gravel 50	% Sand	% Silt 10	% Mud	d/Clay 40	% Bedrock
Aquatic Vegatation:						
none						
Water Characteristic						
Odor:	☐ Sewage	☐ Musky	☐ Chemi		✓ None	☐ Other:
Color:	□ Clear	□Green	☐ Gray		☑ Milky	☐ Other:
Bottom Deposit:	□ Sludge	□ Solids			None	☐ Other:
Surface Deposit:	□ Oil	☐ Scum	☐ Foam	<u>\</u>	☑None	☐ Other:

#### Field Data Sheets for Recreational Use Stream Surveys

#### **Data Sheet B - Site Characterization (continued)**

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses)

Comments: (Please record any additional comments here.)  Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.  Surveyor's Signature:	Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.						
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.						
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.						
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.						
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.						
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.						
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.	_					
complete.		cord any additional comments	here.)			
complete.						
complete.						
complete.						
complete.						
complete.						
complete.						
complete.						
complete.						
complete.						
Surveyor's Signature: Aaron Ball Date of Survey: 10/25/2007		ou have completed all s	ections, checke	ed all applicable	boxes, and that the	form is
	Surveyor's Signature:	Aaron Ball		_Date of Survey:	10/25/2007	
Organization: SES, Inc. Position: Field Team Leader	Organization:	SES. Inc.		Position:	Field Team Leader	

																		Disso	lved Ox	ygen		
		ody ID:														Date:	10/25/07	i		Time:	17:26	
	Estima	ted Chanı	nel Incisi	on:	4.0	(m) (hei	ight betw	een low b	ank wid	th and wa	iter)					Di	issolved (	Oxygen:		15.4	(mg/L)	
		cation - : UTM X	•	UTM X) 0421903	3	1	Y), Hor UTM Y:	izontal Ac	curacy I 431525		•	DOP / F0 +/-	OM) 7.5	(meters)		Di	issolved (	Oxygen:			(% sat)	
	11	UTM X		0422083	3	1	UTM Y:		431510	3	i	+/-	6.6	(meters)	•		Specifi	c Cond:			(µS/cm)	
	_	e Stream ermne Le					4	(meters)		ength of 20x avera	-	-		150	(meters)	Wa						
				,					(2	ox avera	ge streat	n widin)				wa	iter Temp	erature:		11.3	(30)	
	Fie	eld Staff:				Aaron E	Ball, Drev	v Dodson						-								
			1		1		1			Tra	nsect C	ross-Se	ction									
		01	0	)2	0	3	(	)4	(	)5	0	6		07	08	8	09	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1 0.3	0.05	0.2	0.05	0.2	0.05	0.2	0.05	0.3	0.10	0.1	0.05	0.3	0.05	0.3	0.10	0.3	0.45	0.4	0.15	0.4	0.05
	2 0.6	0.10	0.4	0.05	0.4	0.10	0.4	0.10	0.6	0.10	0.2	0.05	0.6	0.20	0.6	0.10	0.6	0.40	0.8	0.40	0.8	0.10
	0.9	0.10	0.6	0.05	0.6	0.15	0.6	0.15	0.9	0.15	0.3	0.10	0.9	0.25	0.9	0.15	0.9	0.50	1.2	0.45	1.2	0.20
	4 1.2	0.15	0.8	0.05	0.8	0.20	0.8	0.20	1.2	0.20	0.4	0.10	1.2	0.35	1.2	0.15	1.2	0.45	1.6	0.50	1.6	0.20
	5 1.5										0.5			0.40	1.5			0.35	2.0		2.0	
	6 1.8							0.20							1.8			0.30			2.4	0.25
	7 2.1							0.20						0.45				0.20			2.8	0.20
	8 2.4 9 2.7							0.25	2.4		0.8		2.4	0.30				0.15	3.2		3.2	0.15
ight Banl		0.03	2.0	0.03	2.0	0.03	2.0	0.23	3.0	0.13	1.0	0.00	3.0	0.13	3.0	0.03	3.0	0.00	4.0	0.00	4.0	0.00
eature Type		0.00	2.0	0.00	2.0	0.00	2.0	0.00	5.0	0.00	1.0	0.00	5.0	0.00	5.0	0.00	5.0	3.00	1.0	3.00	1.0	0.00
ffle, run, or po	ol ri	ffle	rif	fle	po	ool	p	ool	ро	ool	rif	fle	р	ool	po	ol	po	ol	po	ol	po	ol

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

	Signed:	Aaron Ball	Date:	10/25/07
--	---------	------------	-------	----------

WBID#	912
Site #	4

Date & Time:		10/26/07	9:51	Site Location	on Descrip	tion (e.g. road	crossing):	
Personnel:		Aaron Ball, Drew D	odson		Weaver S	chool		
Current Weath	her Cond	ditions: cloudy, lig	jht rain	Facility Nar	ne:	Odessa Muni	cipal WWTF	
Weather cond	litions fo	r the past 10 days:	1.96 inches	Permit Num	nber:	MO 0026387		
Drought condi	itions?: N	No drought ☑ ; Phas	se I □ ; Phase	II □ ; Phas	e III □ ; Pl	hase IV □ ; Ur	nknown 🗆	
Site Location	۱۰							
		(Universal Transver	se Mercator Pr	rojection, In	Meters			
Site 01	Easting	ı (UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters
	042443	 31	4313853	<del></del>	_			6.3
Site 11	Easting	ı (UTM X):	Northing (UTN			Horizontal Ac	curacy:	Meters
	042462	·	4313876					5.1
	U42702	.0	4010070					J. I
Photos:	,	_						
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	ourpose	Photo ID#:	Photo Pu	urpose
43	Downst	ream	44	Upstream				
Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	ourpose	Photo ID#	Photo Pu	urpose
Photo ID#	Р	Photo Purpose	Photo ID#	Photo F	ourpose	Photo ID#	Photo Pu	urpose
Uses Observ	ed:							
☐ Swimming	]	☐ Skin diving	☐ SCUBA di	iving	☐ Tubing	g	□ Water Skiir	ng
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	<u>-</u> ng	□ Rafting	
☐ Hunting		☐ Trapping	☐ Fishing		✓ None	of the above	☐ Other:	
Describe:		шарр3	L 110g		L 1.5	01 1110 0.201.		
								ļ

WBID#	912
Site#	4

### **Data Sheet B- Site Characterization (Continued)**

Surrounding Conditi	ons:			
☐ City/County parks	☐ playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	□ National Forests	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☑ Fence	☐ No tresspass sign		☐ Other:
Comments:				
none				
- Idamaa afilismaan l				
Evidence of Human		□ □ □ -1./-1-# > max	I Commission of Cities	I Deres essiment
☑ Roads	☐ Foot path/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
□ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock watering
comments/other:	trash (car battery)			Ī
	,			
	,			
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	, , , , , ,			
Substrate:				
Substrate: % Cobble	% Gravel	% Sand % Silt	% Mud/0	Clay % Bedrock
	% Gravel	% Sand % Silt 20	% Mud/0 70	-
% Cobble	% Gravel			-
% Cobble	% Gravel			-
% Cobble 10	% Gravel			-
% Cobble 10 Aquatic Vegatation:	% Gravel			-
% Cobble 10 Aquatic Vegatation:	% Gravel			-
% Cobble 10 Aquatic Vegatation:	% Gravel			-
% Cobble 10 Aquatic Vegatation: none				-
% Cobble 10  Aquatic Vegatation: none  Water Characteristic	s:	20	70	
% Cobble 10  Aquatic Vegatation: none  Water Characteristic Odor:	:s: □ Sewage		nical ☑ I	None ☐ Other:
% Cobble 10  Aquatic Vegatation: none  Water Characteristic Odor: Color:	es: □ Sewage □ Clear	□ Musky □ Chem	nical ☑ t	None ☐ Other: Milky ☐ Other:
% Cobble 10  Aquatic Vegatation: none  Water Characteristic Odor:	:s: □ Sewage	□ Musky □ Chem	nical ☑ ↑ sediments ☑ ↑	None ☐ Other:

Organization: SES, Inc.

#### Field Data Sheets for Recreational Use Stream Surveys

# Data Sheet B - Site Characterization (continued)

Additional Stream Morbitology. (Necola isolatea pools of other leatures identified duffind the survey that may support recreational as	Stream Morphology: (Record isolated pools or other features identified during the survey that may support recrea	tional uses
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Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	cord any additional comments	here.)			
none					
Please verify that yo	ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is
-					
Surveyor's Signature:	Aaron Ball		Date of Survey:	10/26/2007	

Position: Field Team Leader

															l l			Disso	lved Ox	xygen		
			912			Site #:										Date:	10/26/07	,		Time:	9:51	
								een low b								Di	ssolved (	Oxygen:		11.8	(mg/L)	
	01	UTM X	:	042443	1	1	UTM Y:	izontal Ac	431385	3	`	+/-	6.3	(meters)		Di	ssolved (	Oxygen:			(% sat)	
	11	UTM X	:	0424628	8		UTM Y:		4313870	6	•	+/-	5.1	(meters)			Specifi	c Cond:			(μS/cm)	
			Width: ngth of F				6	(meters)		ength of 20x avera				150	(meters)	Wa	ter Temp	erature:		10.3	(°C)	
	Fiel	d Staff:				Aaron E	Ball, Drev	w Dodson														
										Tra	nsect C	ross-Se	ction									
	0	1		2		3		04		)5		6		07	08	3	0	9		0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.5	0.10	0.5	0.20	0.5	0.20	0.3	0.10	0.4	0.10	0.5	0.40	0.4	0.50	0.5	0.45	0.4	0.10	0.5	0.20	0.6	0.05
2	1.0	0.20	1.0	0.60	1.0	0.30	0.6	0.30	0.8	0.15	1.0	0.80	0.8	0.70	1.0	0.65	0.8	0.15	1.0	0.40	1.2	0.05
3	1.5	0.20	1.5	0.75	1.5	0.40	0.9	0.40	1.2	0.15	1.5	0.80	1.2	0.80	1.5	0.70	1.2	0.25	1.5	0.50	1.8	0.05
4	2.0	0.40			2.0	0.45	1.2	0.40	1.6	0.10			1.6	0.90	2.0	0.70	1.6	0.20			2.4	0.25
5	2.5	0.50													2.5	0.60	2.0	0.20				0.40
6	3.0	0.45													3.0	0.30	2.4	0.30				
7	3.5	0.45						0.70							3.5	0.40	2.8	0.30				0.50
8	4.0	0.40													4.0	0.30	3.2	0.30				0.55
9 Right Bank		0.20	5.0	0.10	5.0	0.10	3.0	0.43	4.0	0.13	5.0	0.00	4.0	0.10	5.0	0.20	4.0	0.13	5.0	0.20	6.0	0.00
Feature Type																						
riffle, run, or pool	pc	ool	po	ool	pc	ool	p	ool	po	ool	po	ool	p	ool	poo	ol	po	ol	po	ool	po	ol

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as  $\geq 1$ )

Signed: Aaron Ball Date: 10/26/07
-----------------------------------

WBID#	912
Site #	5

Date & Time:		10/26/07	9:20	Site Location	on Descrip	tion (e.g. road	crossing):	
Personnel:		Aaron Ball, Drew D	odson		Oakland S	School		
Current Weath	her Cond	ditions: cloudy, lig	ght rain	Facility Nar	me:	Odessa Muni	cipal WWTF	
Weather cond	litions fo	r the past 10 days:	1.96 inches	Permit Num	nber:	MO 0026387		
Drought condi	itions?: N	No drought ☑ ; Phas	se I □ ; Phase	II □ ; Phas	e III □ ; PI	hase IV □ ; Ur	nknown 🗆	
Site Location	١٠							
		(Universal Transver	se Mercator Pr	rojection, In	Meters			
Site 01	Easting	ı (UTM X):	Northing (UTN	<b>И</b> <u>Y</u> ):		Horizontal Ac	curacy:	Meters
	042705	<del></del> 55	4314511	<del></del>				5.4
Site 11	Easting	ı (UTM X):	Northing (UTN	M Y):		Horizontal Ac	curacy:	Meters
	042729	,	4314403				·	4.8
	042120	0	4017700					4.0
Photos:							1	
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Pu	urpose
41	Upstrea	am	42	Downstrear	m			
					_			
Photo ID#	P	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Pu	urpose
Photo ID#	P	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Pu	urpose
Uses Observ	ed:							
☐ Swimming	ı	☐ Skin diving	☐ SCUBA di	iving	☐ Tubin	g	☐ Water Skiir	ng
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting	
☐ Hunting		☐ Trapping	☐ Fishing		✓ None	of the above	☐ Other:	
Describe:		ПдЬьд	<u> </u>			01 11.0 4001.0	<u> </u>	

WBID#	912
Site #	5

# **Data Sheet B- Site Characterization (Continued)**

Surrounding Conditi	ions:					
☐ City/County parks	□ playgrounds	☐ MDC conser	vation lands	☐ Urban areas	s □ Rui	ral Residential
☐ Campgrounds	☐ State parks	☐ National Fore	ests	☐ Nature trails	□ Sta	nirs/walkways
☐ Boating accesses	☐ Fence	☐ No tresspass	sign		s 🗆 Ot	her:
Comments: none						
Evidence of Human						
☐ Roads	☐ Foot path/prints			☐ Camping Sit		pe swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Disch	narge	☐ Fishing Tack	kle   ∐ Liv	estock watering
Substrate:						
Substrate: % Cobble 20	% Gravel	% Sand	% Silt	% M	ud/Clay 80	% Bedrock
% Cobble 20 Aquatic Vegatation:	% Gravel	% Sand	% Silt	% M	•	% Bedrock
% Cobble 20	% Gravel	% Sand	% Silt	% M	•	% Bedrock
% Cobble 20 Aquatic Vegatation:		% Sand			80	% Bedrock
% Cobble 20  Aquatic Vegatation: none  Water Characteristic Odor:	es: □ Sewage	□ Musky	□ Chem	ical	80 Solve None	□ Other:
% Cobble 20  Aquatic Vegatation: none  Water Characteristic Odor: Color:	e <b>s</b> : □ Sewage □ Clear	□ Musky □Green	□ Chem	ical	80 Solution None Solution Milky	□ Other:
% Cobble 20  Aquatic Vegatation: none  Water Characteristic Odor:	es: □ Sewage	□ Musky	□ Chem	ical sediments	80 Solve None	□ Other:

Organization: SES, Inc.

### Field Data Sheets for Recreational Use Stream Surveys

# Data Sheet B - Site Characterization (continued)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreation
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Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
<b>Comments:</b> (Please re none	cord any additional comments	here.)			
ione					
Please verify that yo	ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is
complete.					
Surveyor's Signature:	Aaron Ball		_Date of Survey:	10/26/2007	

Position: Field Team Leader

																		Disso	lved Ox	ygen		
										h and wa	iter)					Date:	10/26/07	7		Time:	9:20	
GP	PS Loc	ation - I	Easting (	UTM X)	, Northin	ng (UTM	Y), Hori	zontal Ac	curacy I	Estimate (	(EPE / P	DOP / FO	OM)			Di	ssolved	Oxygen:		14.9	(mg/L)	
			:	0427055 0427296	5 5							+/-	5.4 4.8			Di		'				
							5	(meters)		-	-	-		150	(meters)	Wa		•				
	Field	l Staff:				Aaron B	Ball, Drev	v Dodson														
										Tra	nsect C	ross-Se	ction									
	01	l	0	2	0	3	(	)4	C	5	0	6		07	08	8	0	9	1	0	1	1
		Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
_	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.5	0.40	0.4	0.25										0.60					0.6	0.20	0.6	0.40
2																						0.60
4	2.0	0.50																				0.60
5	2.5	0.50	2.0	0.50	3.5	0.40	3.0	0.50	3.0	0.55	3.0	0.40	2.5	0.80	3.5	0.80	3.0	1.00	3.0	0.85	3.0	0.95
6	3.0	0.40	2.4	0.35	4.2	0.35	3.6	0.55	3.6	0.55	3.6	0.65	3.0	0.80	4.2	0.72	3.6	1.00	3.6	0.80	3.6	0.90
7	3.5	0.35	2.8	0.25	4.9	0.25	4.2	0.50	4.2	0.50	4.2	0.65	3.5	0.60	4.9	0.65	4.2	1.00	4.2	0.65	4.2	0.75
8	4.0	0.30	3.2	0.15	5.6	0.20	4.8	0.45	4.8	0.45	4.8	0.55	4.0	0.45	5.6	0.60	4.8	1.00	4.8	0.55	4.8	0.55
9	4.5	0.20						0.15						0.15								0.40
	5.0	0.00	4.0	0.00	7.0	0.00	6.0	0.00	6.0	0.00	6.0	0.00	5.0	0.00	7.0	0.00	6.0	0.00	6.0	0.00	6.0	0.00
	pod	ol	po	ol	pc	ool	pq	ool	po	ool	pc	ool	p	ool	po	ol	po	ool	po	ol	ро	ol
	Es GH AX (T)	Estimate  GPS Loc  01  11  Average (To deter  Field  Distance (m)  0  1 0.5  2 1.0  3 1.5  4 2.0  5 2.5  6 3.0  7 3.5  8 4.0  9 4.5  k 5.0	## Company of the com	### Estimated Channel Incision    GPS Location - Easting (1)	Estimated Channel Incision:   GPS Location - Easting (UTM X)	Estimated Channel Incision: 5.0 (m) (height between low bank width and was GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (1) 1 UTM X: 0427055 UTM Y: 4314511 11 UTM X: 0427296 UTM Y: 4314403  Average Stream Width: 5 (meters) Length of (20x avera Field Staff: Aaron Ball, Drew Dodson  Tra  01 02 03 04 05  Field Staff: Aaron Ball, Drew Dodson  Tra  01 02 03 04 05  Distance (m) Depth (m) Distance (m) Depth (m) Dept	Estimated Channel Incision: 5.0 (m) (height between low bank width and water)  GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PO1 UTM X: 0427055 UTM Y: 4314511 UTM X: 0427296 UTM Y: 4314403  Average Stream Width: 5 (meters) Length of Survey S (20x average stream Field Staff: Aaron Ball, Drew Dodson  Field Staff: Aaron Ball, Drew Dodson  Transect C (20x average stream Width) Distance (m) Depth (m) Distance (m) Depth (m) Dept	Estimated Channel Incision:	Estimated Channel Incision:	Estimated Channel Incision:	Estimated Channel Incision:	Date:   Estimated Channel Incision:   5.0 (m) (height between low bank width and water)   Date:   GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)   The property of the pr	Estimated Channel Incision:	Materbody ID:   912   Site #:   5	Materbody ID:   912	Date   10/26/07   Time:	Materbody ID:   912   Site #   5					

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

Signed: Aaron Ball	Date:	10/26/07	
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WBID#	912
Site #	6

Date & Time:		10/26/07	8:10	Site Location	on Descrip	tion (e.g. road	crossing):	
Personnel:		Aaron Ball, Drew D	odson		Highway l	Н		
Current Weath	ner Cond	ditions: cloudy		Facility Nar	me:	Odessa Muni	cipal WWTF	
Weather cond	litions fo	r the past 10 days:	1.96 inches	Permit Num	nber:	MO 0026387		
Drought condi	itions?: N	No drought ☑ ; Phas	se I □ ; Phase	II □ ; Phas	e III □ ; Pl	hase IV □ ; Ur	nknown 🗆	
Site Location	1.							
		(Universal Transver	se Mercator Pr	rojection, In	Meters			
Site 01	Easting	ı (UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters
	042913	6	4313667	<del></del>	_			6.3
Site 11	Easting	ı (UTM X):	Northing (UTN	M Y):		Horizontal Ac	curacy:	Meters
	042940	,	4313739					9.3
	U42340	<u> </u>	4010700					J.J
Photos:							1	
Photo ID#	F	Photo Purpose	Photo ID#:	Photo P	ourpose	Photo ID#:	Photo Pu	urpose
39	Downst	ream	40	Upstream		Γ		
Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	ourpose	Photo ID#	Photo Pu	urpose
Photo ID#	P	Photo Purpose	Photo ID#	Photo F	ourpose	Photo ID#	Photo Pu	urpose
	_		<del></del>	<del></del>	_			
Uses Observ	ed:							
☐ Swimming	ı	☐ Skin diving	☐ SCUBA di	iving	☐ Tubing	g	☐ Water Skiir	ng
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	<u>-</u> ng	□ Rafting	
☐ Hunting		☐ Trapping	☐ Fishing			of the above	☐ Other:	
Describe:		Парр3	L 110g		L 1.5	01 1110 0.201.	L 00.0	
								ļ

WBID#	912
Site #	6

# **Data Sheet B- Site Characterization (Continued)**

Surrounding Conditions:  □ City/County parks □ playgrounds □ MDC conservation lands □ Urban areas □ Rural Residential □ Campgrounds □ State parks □ National Forests □ Nature trails □ Stairs/walkways □ Boating accesses □ Fence □ No tresspass sign ☑ Steep Slopes □ Other:  Comments:  none    Vidence of Human Use: □ Roads □ Foot path/prints □ Dock/platform □ Camping Sites □ Rope swings □ RV/ATV Tracks □ Fire pit/ring □ NPDES Discharge □ Fishing Tackle □ Livestock watering comments/other:  none    Substrate:   W Cobble   W Gravel   W Sand   W Silt   W Mud/Clay   W Bedrock   15   W   W   W   W   W   W   W   W   W						
□ City/County parks □ playgrounds □ MDC conservation lands □ Urban areas □ Rural Residential   □ Campgrounds □ State parks □ National Forests □ Nature trails □ Stairs/walkways   □ Boating accesses □ Fence □ No tresspass sign ☑ Steep Slopes □ Other:       Fire pit/ring   Dock/platform   Camping Sites   Rope swings   RV/ATV Tracks   Fire pit/ring   NPDES Discharge   Fishing Tackle   Livestock watering comments/other:    NPDES Discharge   Fishing Tackle   Livestock watering   Rope swings   Rope swi	Surrounding Conditi	ons:				
□ Campgrounds □ State parks □ National Forests □ Nature trails □ Stairs/walkways □ Boating accesses □ Fence □ No tresspass sign □ Steep Slopes □ Other:    Steep Slopes □ Other: □ Comments:			☐ MDC conservat	ion lands	☐ Urban areas	☐ Rural Residential
□ Boating accesses □ Fence □ No tresspass sign ☑ Steep Slopes □ Other:  Comments:  none  Evidence of Human Use:  ☑ Roads □ Foot path/prints □ Dock/platform □ Camping Sites □ Rope swings □ RV/ATV Tracks □ Fire pit/ring □ NPDES Discharge □ Fishing Tackle □ Livestock watering comments/other:  none  Substrate:  % Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock 15 85  Aquatic Vegatation:			□ National Forest	S	☐ Nature trails	☐ Stairs/walkways
Evidence of Human Use:    Poot path/prints   Dock/platform   Camping Sites   Rope swings   RV/ATV Tracks   Fire pit/ring   NPDES Discharge   Fishing Tackle   Livestock watering comments/other:   none	. 0		☐ No tresspass si	gn		•
☑ Roads ☐ Foot path/prints ☐ Dock/platform ☐ Camping Sites ☐ Rope swings   ☐ RV/ATV Tracks ☐ Fire pit/ring ☐ NPDES Discharge ☐ Fishing Tackle ☐ Livestock watering comments/other:    Substrate:    % Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock 85   15 85    Aquatic Vegatation:	Comments:			<u> </u>	·	
□ RV/ATV Tracks □ Fire pit/ring □ NPDES Discharge □ Fishing Tackle □ Livestock watering comments/other:  none  Substrate:  % Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock 15  Aquatic Vegatation:			T D L/m Lettown		Committee Citor	I D D
comments/other: none  Substrate: % Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock 15  Aquatic Vegatation:						
Substrate:  % Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock 15  Aquatic Vegatation:		☐ Fire pivring	☐ NPDES DISCRAI	ge	☐ Fishing Lackie	Livestock watering
Substrate: % Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock 15 85  Aquatic Vegatation:	comments/other:					
% Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock 15 85  Aquatic Vegatation:	none					
Aquatic Vegatation:						
Aquatic Vegatation:		% Gravel	% Sand	% Silt		•
	15				85	
none						
Water Characteristics:         Odor:       □ Sewage       □ Musky       □ Chemical       ☑ None       □ Other:			□ Mucky	□ Chemi	i N	None Other
,	Odor:					
Bottom Deposit: ☐ Sludge ☐ Solids ☐ Fine sediments ☐ None ☐ Other:	Color	T Clear	· II ·roon			
Surface Deposit:	Color:					

Organization: SES, Inc.

### Field Data Sheets for Recreational Use Stream Surveys

# Data Sheet B - Site Characterization (continued)

<b>Additional Stream Morphology</b> . (Record isolated pools or other features identified during the survey that may support recreational u	am Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses)
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	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	docess location (m)				
					_
	ecord any additional comments	here.)			
one					
lease verify that yo omplete.	ou have completed all s	ections, checke	ed all applicable	boxes, and that the f	form is

Position: Field Team Leader

																		Disso	lved Ox	xygen		
					-	Site #:	•									Date:	10/26/07	7		Time:	8:10	
						_		een low b								Di	issolved	Oxygen:		15.2	(mg/L)	
	01	UTM X	:	0429136	5	1	UTM Y:		431366	7		+/-	6.3	(meters)		Di	issolved	Oxygen:			(% sat)	
		UTM X		0429405		_					•	+/-	9.3	(meters)	-		Specifi	c Cond:			(µS/cm)	
	_	e Stream ermne Le					7	(meters)		ength of 20x avera	-	-		150	(meters)	Wa	ter Temp	erature:		10.3	(°C)	
	Fiel	ld Staff:				Aaron E	Ball, Drev	v Dodson														
										Tra	nsect C	ross-Se	ction									
	0	)1	0	)2	0	)3		04	(	)5	0	16	(	07	0	8	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.3	0.20	0.9	0.20	0.6	0.20	1.3	0.15	1.2	0.10	1.2	0.10	1.2	0.40	1.0	0.75	0.8	0.90	0.8	0.20	1.0	0.35
2	2.6	0.20	1.8	0.30	1.2	0.35	2.6	0.30	2.4	0.25	2.4	0.20	2.4	0.55	2.0	1.00	1.6	1.00	1.6	0.80	2.0	0.70
3	3.9	0.25	2.7	0.40	1.8	0.40	3.9	0.60	3.6	0.15	3.6	0.20	3.6	0.80	3.0	1.00	2.4	1.00	2.4	1.00	3.0	0.80
4	5.2	0.20	3.6	0.55	2.4	0.40	5.2	0.55	4.8	0.35	4.8	0.20	4.8	0.95	4.0	1.00	3.2	1.00	3.2	1.00	4.0	0.85
5	6.5	0.40	4.5	0.80	3.0	0.40	6.5	0.50	6.0	0.30	6.0	0.25	6.0	1.00	5.0	1.00	4.0	1.00	4.0	1.00	5.0	0.95
6	7.8	0.70	5.4	0.72	3.6		7.8	0.45	7.2	0.35	7.2	0.65	7.2	1.00	6.0	1.00	4.8	1.00	4.8	1.00	6.0	
7	9.1	0.55	6.3					0.65	8.4						7.0							
8	10.4	0.20			4.8			0.60	9.6						8.0			1.00	6.4		8.0	
9 ight Bank	1117	0.20	9.0	0.15	5.4 6.0	0.10	11.7	0.60	10.8	0.50	10.8	0.30	10.8	0.70	9.0	0.85	7.2 8.0	0.90	7.2 8.0	0.40	9.0	0.50
eature Type	13.0	0.00	9.0	0.00	0.0	0.00	13.0	0.00	12.0	0.00	12.0	0.00	12.0	0.00	10.0	0.00	0.0	0.00	0.0	0.00	10.0	0.00
ffle, run, or pool	рс	ool	рс	ool	ро	ool	p	ool	р	ool	po	ool	p	ool	ро	ol	рс	ol	рс	ool	po	ol

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

Signed: Aaron Ball Date: 10/26/07
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Site# 1 Photo ID# 47, Upstream



Site#2 Photo ID# 46, Upstream



Site# 1 Photo ID# 48, Downstream,



Site# 2 Photo ID# 45, Downstream



Site# 3 Photo ID# 36, Upstream



Site#3 Photo ID# 37, Livestock watering



Site# 3 Photo ID# 38, Downstream,



Site# 4 Photo ID# 43, Downstream



Site# 4 Photo ID# 44, Upstream



Site# 5 Photo ID# 41, Upstream



Site# 5 Photo ID# 42, Downstream,



Site# 6 Photo ID# 39, Downstream



Site# 6 Photo ID# 40, Upstream